

RAW SEQUENCE LISTING

DATE: 07/06/2004

PATENT APPLICATION: US/10/500,216

TIME: 12:19:14

Input Set : A:\61534 Sequence Listing.txt

Output Set: N:\CRF4\07062004\J500216.raw

```

52 Ile Arg Tyr Asp Leu Cys Ile Phe Arg Thr Asp Asp Gly Arg Gly Trp
53           245           250           255
54 Gly Val Arg Thr Leu Glu Lys Ile Arg Lys Asn Ser Phe Val Met Glu
55           260           265           270
56 Tyr Val Gly Glu Ile Ile Thr Ser Glu Glu Ala Glu Arg Arg Gly Gln
57           275           280           285
58 Ile Tyr Asp Arg Gln Gly Ala Thr Tyr Leu Phe Asp Leu Asp Tyr Val
59           290           295           300
60 Glu Asp Val Tyr Thr Val Asp Ala Ala Tyr Tyr Gly Asn Ile Ser His
61 305           310           315           320
62 Phe Val Asn His Ser Cys Asp Pro Asn Leu Gln Val Tyr Asn Val Phe
63           325           330           335
64 Ile Asp Asn Leu Asp Glu Arg Leu Pro Arg Ile Ala Phe Phe Ala Thr
65           340           345           350
66 Arg Thr Ile Arg Ala Gly Glu Glu Leu Thr Phe Asp Tyr Asn Met Gln
67           355           360           365
68 Val Asp Pro Val Asp Met Glu Ser Thr Arg Met Asp Ser Asn Phe Gly
69           370           375           380
70 Leu Ala Gly Leu Pro Gly Ser Pro Lys Lys Arg Val Arg Ile Glu Cys
71 385           390           395           400
72 Lys Cys Gly Thr Glu Ser Cys Arg Lys Tyr Leu Phe
73           405           410

```

75 <210> SEQ ID NO: 2

76 <211> LENGTH: 1236

77 <212> TYPE: DNA

78 <213> ORGANISM: Human

80 <400> SEQUENCE: 2

```

81 atggcggaattttaaaggctgcagcgtgtgttgcaagctcttcttggaatcagctgcag 60
82 gacctgtgccgcttgccaa gctctcctgc cctgccctcg gtatctctaa gaggaacctc 120
83 tatgactttg aagtcgagta cctgtgcgat tacaagaaga tccgcgaaca ggaatattac 180
84 ctggtgaaatggcgtggata tccagactca gagagcacct gggagccacg gcagaatctc 240
85 aagtgtgtgc gtatctctcaa gcagtccac aaggacttag aaaggaggct gctccggcgg 300
86 caccaccggt caaagacccc ccggcacctg gacccaagct tggccaacta cctggtgcag 360
87 aaggccaagc agaggcgggc gctccgtcgc tgggagcagg agctcaatgc caagcgagc 420
88 catctgggac gcatcactgt agagaatgag gtggacctgg acggccctcc gcgggccttc 480
89 gtgtacatca atgagtaccg tgttggtgag ggcatacccc tcaaccaggt ggctgtgggc 540
90 tgcgagtgcc aggactgtct gtgggcaccc actggaggct gctgcccggg ggcgtcactg 600
91 cacaagtttg cctacaatga ccagggccag gtgcggcttc gagccgggct gcccattctac 660
92 gagtgcact cccgctgccg ctgcggctat gactgcccac atcgtgtggt acagaagggt 720
93 atccgatatg acctctgcat ctccggacg gatgatgggc gtggctgggg cgtccgcacc 780
94 ctggagaaga ttcgcaagaa cagcttcgtc atggagtacg tgggagagat cattacctca 840
95 gaggaggcag agcggcgggg ccagatctac gaccgtcagg gcgccaccta cctctttgac 900
96 ctggactacg tggaggacgt gtacaccgtg gatgccgcct actatggcaa catctccac 960
97 tttgtcaacc acagttgtga cccaacctg cagggtgtaca acgtcttcat agacaacctt 1020
98 gacgagcggc tgccccgcat cgctttcttt gccacaagaa ccatccgggc aggcgaggag 1080
99 ctacactttg attacaacat gcaagtggac cccgtggaca tggagagcac ccgcatggac 1140
100 tccaactttg gcctggctgg gctccctggc tcccctaaga agcgggtccg tattgaatgc 1200
101 aagtgtggga ctgagtcctg ccgcaaatac ctcttc 1236

```

103 <210> SEQ ID NO: 3

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```

104 <211> LENGTH: 2754
105 <212> TYPE: DNA
106 <213> ORGANISM: Human
108 <400> SEQUENCE: 3
109 ggcacgagggc gcgaggccgg ctaggccccga atgtcgtag ccgtaggggaa agatggcgga 60
110 aaatttaaaa ggctgcagcg tgtgttgcaa gtcttcttg aatcagctgc aggacctgtg 120
111 ccgcctggcc aagctctcct gccctgccct cggtatctct aagaggaacc tctatgactt 180
112 tgaagtcgag tacctgtgag attacaagaa gatccgcgaa caggaatatt acctggtgaa 240
113 atggcgtgga tatccagact cagagagcac ctgggagcca cggcagaatc tcaagtgtgt 300
114 gcgtatcctc aagcagttcc acaaggactt agaaaggagg ctgctccggc ggcaccaccg 360
115 gtcaaagacc ccccggcacc tggacccaag ctgggccaac tacctgggtgc agaaggccaa 420
116 gcagaggcgg gcgctccgtc gctgggagca ggagctcaat gccaaagcga gccatctggg 480
117 acgcatcact gtagagaatg aggtggacct ggacggccct ccgcgggcct tcgtgtacat 540
118 caatgagtac cgtgttggtg agggcatcac cctcaaccag gtggctgtgg gctgcgagt 600
119 ccaggactgt ctgtgggcac ccactggagg ctgctgcccg ggggcgtcac tgcacaagtt 660
120 tgcctacaat gaccagggcc aggtgcggct tcgagccggg ctgcccctct acgagtgcaa 720
121 ctcccgtgc cgctgcggct atgactgccc aaatcgtgtg gtacagaagg gtatccgata 780
122 tgacctctgc atcttccgca cggatgatgg gcgtggctgg ggcgccgca ccctggagaa 840
123 gattcgcaag aacagcttcg tcatggagta cgtgggagag atcattacct cagaggaggc 900
124 agagcggcgg gccagatct acgaccgtca gggcgccacc tacctctttg acctggacta 960
125 cgtggaggac gtgtacaccg tggatgccgc ctactatggc aacatctccc actttgtcaa 1020
126 ccacagttgt gaccccaacc tgcaggtgta caacgtcttc atagacaacc ttgacgagcg 1080
127 gctgccccgc atcgctttct ttgccacaag aaccatccgg gcaggcgagg agctcacctt 1140
128 tgattacaac atgcaagtgg acccgtgga catggagagc acccgcatgg actccaactt 1200
129 tggcctggct gggctccctg gctcccctaa gaagcgggtc cgtattgaat gcaagtgtgg 1260
130 gactgagtc tgccgcaaat acctcttcta gcccttagaa gtctgaggcc agactgactg 1320
131 agggggcctg aagctacatg cacctcccc actgctgccc tcctgtcgag aatgactgcc 1380
132 agggcctcgc ctgctccac ctgccccac ctgctctac ctgctctacg ttcagggctg 1440
133 tggcctgggt gaggaccgac tccaggagtc cctttccct gtcccagccc catctgtggg 1500
134 ttgcaactac aaacccccac ccaccttcag aaatagtttt tcaacatcaa gactctctgt 1560
135 cgttgggatt catggcctat taaggaggtc caagggtgta gtcccaaccc agcccagaa 1620
136 tatatttgtt tttgacctg cttctgctg gagattgagg ggtctgctgc aggcctcctc 1680
137 cctgtgccc caaaggtatg ggaagcaac ccagagcag gcagacatca gaggcagag 1740
138 tgccagtcgc gacatgaagc tggttcccca accacagaaa ctttgtacta gtgaaagaaa 1800
139 gggggtccct gggctacggg ctgaggctgg tttctgctcg tgcttacagt gctgggtagt 1860
140 gttggcccta agagctgtag ggtctcttct tcagggtgctc atatctgaga agtggatgcc 1920
141 cacatgccac tggaaaggaa gtgggtgtcc atgggccact gagcagttag aggaaggcag 1980
142 tgcagagctg gccagccctg gaggtaggct gggaccaagc tctgccttca cagtgcagt 2040
143 aaggtaccta gggctcttgg gagctctgag gttgctaggg gccctgacct ggggtgtcat 2100
144 gaccgctgac accactcaga gctggaacca agatctagat agtccgtaga tagcacttag 2160
145 gacaagaatg tgcattgatg ggggtgtgat gaggtgccag gcactgggta gagcacctgg 2220
146 tccacgtgga ttgtctcagg gaagccttga aaaccacgga ggtggatgcc aggaaagggc 2280
147 ccatgtggca gaaggcaaaag tacaggccaa gaattggggg tgggggagat ggcttcccca 2340
148 ctatgggatg acgaggcgag agggaagccc ttgctgctg ccattcccag accccagccc 2400
149 tttgtgctca ccctggttcc actggtctca aaagtacact gcctacaaat gtacaaaagg 2460
150 cgaaggttct gatggctgcc ttgctcctt ctccccacc ccctgtgagg acttctctag 2520
151 gaagtccttc ctgactacct gtgccagag tgcccctaca tgagactgta tgccctgcta 2580
152 tcagatgcca gatctatgtg tctgtctgtg tgtccatccc gccgaccccc cagactaacc 2640
153 tccaggcatg gactgaatct ggttctctc ttgtacacc ctcaacccta tgcagcctgg 2700

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```

154 agtgggcatc aataaaatga actgtcgact gaaaaaaaaa aaaaaaaaaa aaaa      2754
156 <210> SEQ ID NO: 4
157 <211> LENGTH: 20
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Primer
164 <400> SEQUENCE: 4
165 atgctgcca gatggctgcg      20
167 <210> SEQ ID NO: 5
168 <211> LENGTH: 20
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Primer
175 <400> SEQUENCE: 5
176 gcgtcggtag accctgcgta      20
178 <210> SEQ ID NO: 6
179 <211> LENGTH: 18
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Primer
186 <400> SEQUENCE: 6
187 aaccttgacg agcggctg      18
189 <210> SEQ ID NO: 7
190 <211> LENGTH: 14
191 <212> TYPE: DNA
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: Primer
197 <400> SEQUENCE: 7
198 tcgcctgccg gatg      14
200 <210> SEQ ID NO: 8
201 <211> LENGTH: 23
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Probe
208 <400> SEQUENCE: 8
209 ccgcatcgct ttctttgcca caa      23
211 <210> SEQ ID NO: 9
212 <211> LENGTH: 24
213 <212> TYPE: DNA
214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Primer
219 <400> SEQUENCE: 9
220 ggaaagatgg cggaaaattt aaaa      24

```

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Input Set : A:\61534 Sequence Listing.txt

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```

222 <210> SEQ ID NO: 10
223 <211> LENGTH: 24
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: Primer
230 <400> SEQUENCE: 10
231 gggctagaag aggtatttgc ggca 24
233 <210> SEQ ID NO: 11
234 <211> LENGTH: 31
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Primer
241 <400> SEQUENCE: 11
242 ccggaattcg cggaaaattt aaaaggctgc a 31
244 <210> SEQ ID NO: 12
245 <211> LENGTH: 29
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: Primer
252 <400> SEQUENCE: 12
253 ccgctcgagc tagaagaggt atttgcggc 29
255 <210> SEQ ID NO: 13
256 <211> LENGTH: 32
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Primer
263 <400> SEQUENCE: 13
264 ccgctcgagc tagccacag ccacctggtt ga 32
266 <210> SEQ ID NO: 14
267 <211> LENGTH: 113
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Primer
274 <400> SEQUENCE: 14
275 ggggtaccaa gatggagcag aaactcatct ctgaagagga tctggagcag aaactcatct 60
276 ctgaagagga tctggagcag aaactcatct ctgaagagga tctggaattc cgg 113
278 <210> SEQ ID NO: 15
279 <211> LENGTH: 113
280 <212> TYPE: DNA
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Primer
286 <400> SEQUENCE: 15
287 ccggaattcc agatcctctt cagagatgag tttctgctcc agatcctctt cagagatgag 60

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/500,216

DATE: 07/06/2004

TIME: 12:19:15

Input Set : A:\61534 Sequence Listing.txt

Output Set: N:\CRF4\07062004\J500216.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date